JILSON CORREIA

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EDUCATION

Northeastern University, *Master of Science, Computer Software Engineering*, **Boston, MA**   Sept 2023 – Aug 2025
Relevant courses: Object-Oriented Design, Web Development, Artificial Intelligence, Data Structures

University of Mumbai, *Bachelor of Engineering, Computer IT Engineering*, **Mumbai, India**   Aug 2018 – June 2022
Relevant courses: Data Structures and Algorithms, Computer Networks, Software Engineering, Cloud Computing, Operating Systems

TECHNICAL SKILLS

Backend: Java, Python, NodeJS, Spring Boot, Express.js, FastAPI, Go

Frontend: React, Next.js, JavaScript, HTML5, CSS3, SASS, TypeScript

AI/ML: RAG, FAISS, Transformers, FLAN-T5, Sentence Transformers, Fine-tuning, Vector Databases

Cloud & DevOps: AWS (EC2, S3, Lambda, CloudFront), Azure, Docker, Kubernetes, Jenkins, GitHub Actions

Databases: MySQL, PostgreSQL, MongoDB, Oracle, Redis, NoSQL, Kafka

Observability & Monitoring: Prometheus, Grafana, System Diagnostics, Logging

Tools: Git, Postman, Jira, Selenium, JUnit, Unix, Linux (Shell, Bash, System Monitoring)

Concepts: Microservices, CI/CD, System Design, Reliability Engineering, Performance Optimization, Debugging, Agile Development, Troubleshooting, Operational Excellence

EXPERIENCE

Software Development Engineer , *IPSER LAB*, **Mountain View, USA**   Jan 2025 - May 2025, Oct 2025 - Present
- Built scalable backend services in Node.js and integrated REST APIs with React, improving modularity and reducing dev effort.
- Developed and optimized backend microservices in Java SpringBoot, enabling high-throughput request handling and improving system scalability.
- Refactored legacy UI into modular React components, improving compatibility and raising test coverage by 25%.
- Investigated and resolved production defects through debugging, which reduced downtime and improved overall system reliability.
- Contributed across complete SDLC, from requirement gathering and design discussions to development, testing, and final production deployment of key features.

Software Developer , *IWMBUZZ*, **Mumbai, India**   Jan 2023 – July 2023
- Developed responsive React components that enhanced user experience, increasing engagement and reducing bounce rates.
- Built RESTful APIs with Node.js and MongoDB to serve monthly visitors, enabling dynamic content rendering and improving scalability for the web application.
- Optimized performance by integrating AWS CloudFront caching and S3 delivery, reducing page load times by 25%.
- Set up CI/CD pipelines with GitHub Actions, cutting deployment time by 60% and improving release consistency.
- Implemented monitoring and health checks with AWS CloudWatch, which improved incident detection and response by 35%.
- Introduced automated testing with Selenium, raising test coverage to 80% and minimizing regressions.
- Enhanced SEO performance by implementing schema markup, boosting organic traffic by 15%.

PROJECTS

Content Management System (CMS) | GitHub
- Designed and built a fullstack Content Management System using Spring Boot and React, enabling course creation, quiz management, and interactive learning features.
- Deployed the backend microservice on AWS EC2 with Docker and GitHub Actions, ensuring automated delivery, scalability, and reduced deployment overhead.
- Applied Object-Oriented principles such as inheritance and factory patterns improving code maintainability and reliability.
- Implemented role-based access control to manage authorization, ensuring secure user experiences for instructors, and students.
- Integrated Redis caching to accelerate content retrieval, reducing API response times by 35%.

Distributed Rate Limiter Service | GitHub
- Developed a distributed file storage system with fault tolerance and replication in Go and gRPC, reliably supporting 5k+ concurrent client requests.
- Implemented consistent hashing for smarter load balancing, helping evenly distribute traffic and reduce server hotspots by 35%.
- Created monitoring dashboards with Prometheus and Grafana, enabling real-time system metrics tracking and timely alerts.
- Improved the client-side SDK with retry and error-handling logic, increasing reliability during network instability.

BuffettBot - AI Investment Advisor | GitHub
- Built a chatbot using RAG architecture with LangChain and FAISS, reducing average query response times by 45%.
- Deployed the service on AWS Lambda and API Gateway, achieving sub-300ms latency while handling 10k+ daily queries.
- Introduced multilingual support across 5 regions, broadening accessibility and driving global adoption.
- Built a Next.JS dashboard for investment trend visualization, improving interpretability for end-users.